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Reconceptualizing Islamic Educational Management: A Literature-Based Integration of Flipped Learning and Sustainability

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ABSTRACT

The growing demand for pedagogical innovation and sustainability-oriented education has created a need to integrate modern learning models with value-based educational frameworks. In Islamic education, this challenge involves aligning technological advancements with spiritual and ethical principles. However, limited studies have explored the integration of the flipped classroom model and Education for Sustainable Development (ESD) within Islamic educational management. This study employed a qualitative approach using a systematic literature review. Relevant articles were collected from major academic databases, including Scopus, Web of Science, ERIC, and Google Scholar, based on predefined inclusion criteria. A total of 28 selected studies were analyzed using thematic synthesis to identify key concepts, patterns, and relationships among flipped learning, sustainability education, and Islamic educational principles. The findings reveal a strong conceptual synergy between the flipped classroom model and ESD. The flipped classroom supports independent learning, critical thinking, and efficient use of instructional time, while ESD provides ethical direction related to environmental, social, and economic sustainability. When integrated within Islamic educational management, these approaches align with core values such as responsibility (khalifah), balance, and holistic human development. The study proposes a conceptual framework that positions flipped learning as a pedagogical mechanism, ESD as value-oriented content, and Islamic management as the guiding philosophical structure. This integration offers a transformative approach to Islamic education by bridging technological innovation with sustainability and spirituality. It enhances student engagement, promotes holistic competencies, and supports the development of ethically responsible learners. The study highlights the need for institutional support, teacher capacity building, and empirical validation of the proposed framework.

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1. INTRODUCTION

The rapid transformation of education in the 21st century has intensified the demand for innovative pedagogical approaches that are not only technologically relevant but also ethically grounded. The emergence of digital learning environments, coupled with global challenges such as environmental degradation, social inequality, and economic instability, has prompted educators to rethink the purpose and practice of education. In this context, two prominent paradigms have gained increasing attention: the flipped classroom model and Education for Sustainable Development (ESD). While the flipped classroom represents a shift in instructional design that promotes active and student-centered learning, ESD emphasizes the development of knowledge, skills, and values necessary to foster a sustainable future (Karatzoglou, 2012; Vare & Scott, 2007). However, the integration of these paradigms within value-based educational systems, particularly Islamic education, remains insufficiently explored.

The flipped classroom model has emerged as an innovative pedagogical approach that reverses traditional instructional sequences by delivering content outside the classroom and utilizing in-class time for interactive and higher-order learning activities. This model is widely recognized for its potential to enhance student engagement, promote independent learning, and support the development of critical thinking skills (Schmidt & Ralph, 2016; Unga et al., 2024). By leveraging digital technologies such as instructional videos, online platforms, and learning management systems, the flipped classroom enables flexible and personalized learning experiences. Nevertheless, its implementation is not without challenges, including issues related to technological access, student motivation, and teacher readiness. More importantly, when applied without a clear philosophical foundation, the flipped classroom risks being reduced to a purely technical innovation, detached from broader educational goals.

Parallel to this, the concept of sustainable education has gained global prominence as an essential response to contemporary challenges. Education for Sustainable Development (ESD) seeks to equip learners with the competencies required to address environmental, social, and economic issues in an integrated and responsible manner (UNESCO, 2009). ESD goes beyond the transmission of knowledge by emphasizing critical thinking, ethical reflection, and action-oriented learning. It encourages learners to become active agents of change who are capable of contributing to sustainable societies. However, despite its importance, the implementation of ESD often remains fragmented and limited to curricular additions, rather than being embedded within pedagogical practices and educational management systems (Vilmala et al., 2022).

In the context of Islamic education, these challenges are further compounded by the need to balance modern pedagogical innovations with deeply rooted spiritual and ethical values. Islamic education is fundamentally oriented toward the holistic development of individuals, encompassing intellectual, spiritual, emotional, and social dimensions. Central to this philosophy are concepts such as tawhid (the unity of knowledge and existence) and khalifah fil ardh (human responsibility as stewards of the Earth), which align closely with the principles of sustainability. Despite this philosophical compatibility, there is often a disconnect between the ideals of Islamic education and contemporary teaching practices, which may remain teacher-centered and less responsive to modern educational demands (Solikah et al., 2025). This gap highlights the need for integrative approaches that can bridge traditional values with innovative pedagogies.

A holistic approach to Islamic educational management offers a promising framework for addressing this challenge. Holistic education emphasizes the integration of multiple dimensions of human development and seeks to create meaningful learning experiences that connect knowledge with real-life applications (Jaili et al., 2024). Within this framework, educational management plays a critical role in designing curricula, facilitating learning environments, and ensuring that pedagogical practices align with institutional values and goals. By adopting a holistic perspective, Islamic educational

institutions can move beyond fragmented implementations of innovation and toward a more coherent and value-driven educational system.

Despite the growing body of literature on flipped learning and sustainable education, a significant gap remains in understanding how these concepts can be synergistically integrated within Islamic educational management. Existing studies tend to examine flipped classrooms primarily as instructional strategies or explore ESD as a curricular component, without adequately addressing their combined potential within a holistic and value-based framework. As a result, the transformative possibilities of integrating pedagogical innovation, sustainability principles, and Islamic educational values remain underdeveloped in current scholarship.

This study aims to address this gap by reconceptualizing Islamic educational management through the integration of the flipped classroom model and sustainable education principles. Specifically, it seeks to develop a conceptual framework that positions the flipped classroom as a pedagogical mechanism, ESD as a value-oriented content framework, and Islamic educational management as the philosophical and organizational foundation that unifies both. By doing so, the study moves beyond viewing these elements as separate components and instead conceptualizes them as a dynamic and interdependent system.

The significance of this study lies in its potential to contribute both theoretically and practically. Theoretically, it advances the discourse on educational innovation by proposing an integrative model that connects modern pedagogical approaches with ethical and spiritual dimensions. Practically, it provides guidance for educators, school leaders, and policymakers in designing learning environments that are not only effective and engaging but also aligned with sustainability goals and Islamic values. In an era characterized by rapid change and complex global challenges, such an approach is essential for preparing learners who are not only academically competent but also socially responsible and morally grounded.

In conclusion, the integration of flipped classroom pedagogy and sustainable education within a holistic Islamic educational management framework represents a critical step toward reimagining the future of education. By aligning technological innovation with ethical purpose and spiritual values, this approach offers a pathway for developing learners who are capable of navigating contemporary challenges while remaining rooted in their cultural and religious identity.

2. METHODS

This study employed a qualitative approach with a systematic literature review to develop a conceptual framework. The data collection process followed a structured flow to ensure comprehensive and relevant coverage. A primary literature search was conducted in several leading academic databases, including Scopus, Web of Science, Google Scholar, and ERIC. The search keywords used were a combination of the following terms: "flipped classroom," "inverted classroom," "sustainable education," "Education for Sustainable Development," "Islamic education," and "holistic management," which were combined using Boolean operators (AND/OR) to broaden and focus the search results.

The source selection process followed strict inclusion and exclusion criteria. Inclusion criteria included: (1) peer-reviewed articles; (2) publication within the last ten years (2015–2025) to ensure novelty, while still considering fundamental classic works; (3) full-text articles; and (4) direct relevance to at least two of the three main research concepts (flipped classroom, sustainability education, Islamic education). Conversely, exclusion criteria included articles that were simply editorials, book reviews, or highly specific case studies without theoretical elaboration. This initial selection process yielded 74 potential articles, which were then refined based on title and abstract, leaving 28 for in-depth review.

Data analysis was conducted using thematic synthesis techniques (Creswell & Creswell, 2018). This procedure began with a thorough reading of selected articles to identify and code relevant data line by line. These initial codes were then grouped into broader descriptive themes, such as "pedagogical mechanisms of the flipped classroom," "pillars of sustainable education," and "principles of Islamic holistic management." Next, an interpretive analysis was conducted by comparing and

contrasting these themes to identify relationships, patterns, and conceptual synergies. This synthesis process aimed to "go beyond" the existing literature by developing new arguments and theoretical models. To ensure the validity of the findings, source triangulation was conducted by verifying the consistency of information across articles and different theoretical perspectives (Chaudhary et al., 2024). Final conclusions were drawn from this critical synthesis, formulating an integrative framework that constitutes the primary contribution of this study.

3. FINDINGS AND DISCUSSION

3.1 Flipped Classroom

The flipped classroom is an innovative learning model that changes the traditional way of teaching by reversing the roles between learning activities at home and in the classroom. In this approach, students study the material independently before the face-to-face session, using a variety of resources such as learning videos, interactive modules, or digital materials. When in class, more time is spent on collaborative activities such as discussions, problem-solving, or group projects (Fahmi et al., 2020). Flipped classrooms aim to maximize interaction between students and teachers and encourage students to become more independent, active learners (Jamilah et al., 2021).

Flipped classrooms have several variations that can be adjusted to learning needs. The traditional flipped classroom is a basic model in which students learn material through videos or modules before class, while class time is devoted to comprehension-based activities (Samaila et al., 2021). The flipped mastery model emphasizes individualized learning, where students progress to the next topic only after they have mastered the previous material. In addition, there is a gamified flipped classroom, which integrates game elements to increase students' motivation to learn, and an in-class flipped classroom, where independent learning activities are carried out in a classroom with the support of technology (Nurfaiziyah & Aminin, 2021).

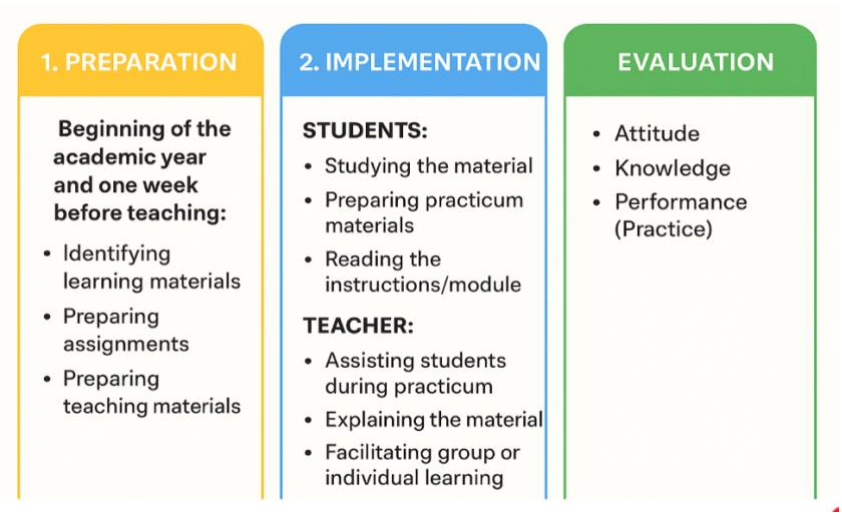

Figure 1. Flipped Classroom Model

Various techniques can be used to implement flipped classrooms effectively. One of the main techniques is the use of learning videos that are specifically designed to provide a clear and concise explanation of the material. These videos can be accessed at any time by students, providing flexibility in learning (Pattiserlihun & Stephanie Jessy, 2020). Another technique is the assignment of preview assignments, where students read or study the material before the class starts. In the classroom, teachers can use small group discussion methods, simulations, or collaborative projects to deepen understanding. In addition, the integration of technology, such as the Learning Management System (LMS), makes it easier to manage materials and evaluate learning (EROĞLU & YÜKSEL, 2020).

The application of the flipped classroom requires careful planning and technology support. Teachers need to create engaging and accessible learning materials, such as videos, online quizzes, or digital presentations. Before class, students are asked to study the material and take note of any questions or things they don't understand. While in class, the teacher acts as a facilitator who helps students understand concepts through discussions or hands-on practice (Yakob et al., 2023). This model can be applied at various levels of education and fields of study, from exact lessons to humanities, with adjustments according to student needs (Ozdamli & Asiksoy, 2016).

One of the main advantages of a flipped classroom is that it provides more time for comprehension-based activities in the classroom, so students can delve into the material with the guidance of the teacher. This approach also encourages students to become more independent in learning and improve critical thinking skills (Schmidt & Ralph, 2016). However, challenges in implementing it include the need for access to technology, difficulties in motivating students to learn independently before class, and the additional time required for teachers to create supporting materials. Therefore, the success of a flipped classroom depends on the readiness of students, teachers, and available facilities (Ağirman & ERCOŞKUN, 2022).

While the flipped classroom model offers significant pedagogical potential, its implementation is not without significant challenges, particularly in the context of evolving education. One of the most fundamental challenges is the digital divide, where not all students have equal access to devices and a stable internet connection at home. Ignoring this reality can inadvertently widen the gap in academic inequality, which contradicts the principle of justice ('adl) in Islamic education. Furthermore, a profound paradigm shift is required not only for students but also for teachers. Teachers, accustomed to being the center of knowledge, must be willing to transform into learning facilitators, a role that demands new skills in designing interactions, moderating discussions, and providing constructive feedback. Therefore, a crucial success factor lies not only in the availability of technology, but also in sustained investment in teacher professional development and strong institutional support to create a more independent and collaborative learning culture.

Philosophically, the flipped classroom model aligns strongly with several core principles of Islamic education. The concept of independent learning outside the classroom aligns with the Islamic intellectual tradition, which encourages proactive exploration of knowledge (thalabul 'ilmi) and personal reflection (tafakkur). Classroom time devoted to dialogue and group discussion reflects the spirit of deliberation (shura) and collective learning highly valued in Islamic culture. By focusing face-to-face interaction on problem-solving and the application of knowledge, this approach also supports the primary goal of Islamic education to produce individuals who are able to benefit the community and their environment (rahmatan lil 'alamin). Teachers, in their role as facilitators, can focus more on character development (tarbiyah) and role modeling (uswah hasanah), which are the essence of the teacher-student relationship in Islamic tradition.

However, on the other hand, there is a potential for disharmony that must be guarded against. An overly technocentric implementation of the flipped classroom, focused solely on the efficiency of digital content delivery, risks reducing the learning process to a mere transactional interaction between students and screens. This can erode the spiritual and humanitarian dimensions of education, where the transmission of knowledge should be accompanied by the transfer of morals and the blessings of knowledge that often occur through direct interaction with the teacher. If the digital content presented is secular and not integrated with Islamic values, this model can actually create dualism within students. To mitigate this risk, Islamic education management must ensure that the digital learning materials developed are not only academically high-quality but also rich in Islamic values. Furthermore, the teacher's role as a spiritual guide (mursyid) in the classroom must be strengthened, ensuring that technology functions as a tool, not a substitute for the human connection that is essential in the educational process.

3.2 Sustainable Education

Sustainable education is an educational approach that focuses on developing awareness and skills to maintain the sustainability of life in the future. This concept encompasses environmental, social, and economic dimensions, which are interrelated in creating a more balanced and sustainable world (Soler & Rosser, 2024). This education aims to equip students with critical thinking skills, ethical values, and concrete actions in facing global challenges, such as climate change, social inequality, and environmental degradation. In sustainable education, the learning process emphasizes not only theoretical knowledge but also practical skills to create relevant solutions (Potter-nelson & Meyers, 2022).

Sustainable education has different types that include a focus on a specific dimension. Environmental education is oriented to environmental conservation through teaching about ecosystems, natural resource management, and environmentally friendly actions. Social sustainability education emphasizes the values of inclusivity, social justice, and fair community development. Meanwhile, economic sustainability education focuses on teaching sustainable economic principles, such as wise consumption and the use of renewable energy. These three types are often integrated in a curriculum designed to provide a holistic understanding to students (Shishakly et al., 2024).

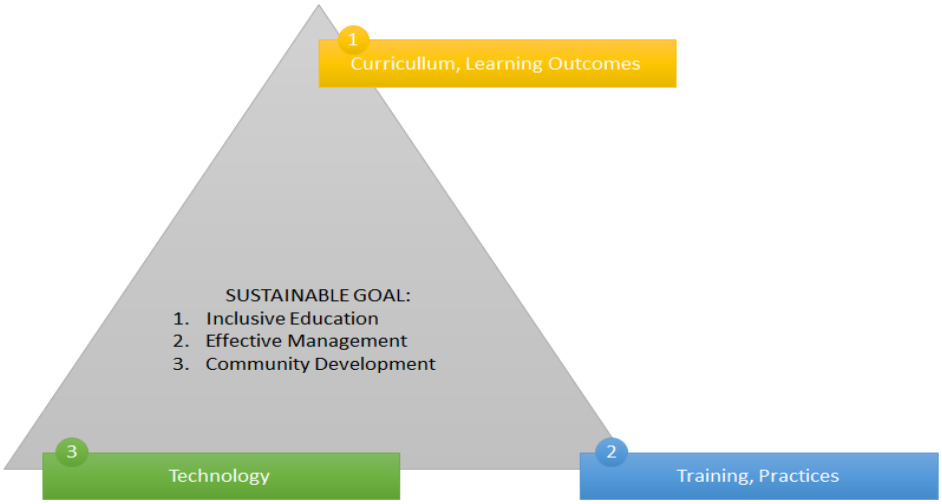

Figure 2. Sustainable Education Model

The implementation of sustainable education involves various innovative and participatory learning techniques. One of the main techniques is project-based learning, where students work on projects relevant to sustainability issues, such as creating a waste management system or designing a green garden in a school (Sulaiman, 2019). Another technique is experiential learning, which provides students with hands-on experience, such as field trips to conservation sites or simulations of sustainability-related decision-making. Interdisciplinary learning is also key, where different fields of science are combined to provide a broader and deeper view of sustainability issues (Ferguson et al., 2022).

The application of sustainable education requires commitment from all parties in the education ecosystem, ranging from teachers, students, to the surrounding community. In practice, schools can integrate sustainability principles into the curriculum, for example, by including materials on climate change, resource management, and social responsibility (Swekwi & Lertlit, 2021). Additionally, schools can create environments that support sustainability learning, such as providing recycling facilities, minimizing the use of plastic, or holding greening activities. Collaboration with local communities, environmental organizations, and sustainability-conscious companies can also amplify the impact of this education (Cini et al., 2023).

Sustainable education provides a wide range of benefits, both for individuals and society. Students who are involved in this education tend to have a higher awareness of global issues and are more prepared to take an active role in creating sustainable solutions (Wilujeng et al., 2019). This education also forms a generation that is able to think critically, empathize, and act responsibly towards the environment and society. However, the challenges faced include limited resources, such as lack of training for teachers, limited learning tools, and resistance to sustainability-oriented curriculum changes (Vilmala et al., 2022).

In an effort to reconceptualize Islamic education management, the implementation of Education for Sustainable Development (ESD) gained momentum when synergized with the flipped classroom model. In many progressive Islamic schools, the contextualization of ESD is no longer merely an additional program but has become the core of the learning content delivered digitally. For example, online videos or modules prepared for independent learning at home not only explain the concept of ecosystems but also directly link them to humanity's mandate as khalifah fil ardh (vicegerent) on earth. Educational management, in this case, plays a strategic role in facilitating the creation of this value-rich digital content. Thus, when students enter the classroom, they already have the theoretical and spiritual foundation to engage in high-level activities, such as designing a school waste management project as an implementation of the principle that cleanliness is part of faith, all facilitated by teachers in interactive face-to-face sessions.

However, this integration presents critical challenges for Islamic education management. Potential tensions arise when ESD principles that encourage critical thinking and student autonomy—reinforced by the flipped classroom model—confront school cultures that still adhere to traditional and hierarchical pedagogies. A successful flipped classroom model demands proactive and independent students, but if the overall school management system does not support a culture of questioning and expressing opinions, innovation at the classroom level will be hampered. Furthermore, there is a risk that the adoption of the flipped classroom will be viewed solely as a technical solution by management, without a philosophical shift in the way it views the purpose of education. If this occurs, ESD could be reduced to merely "green" content in learning videos, while the classroom fails to become an arena for critical dialogue on social and environmental justice issues that can be sensitive in the context of traditional religious practices.

The key to resolving this tension and realizing authentic integration lies in the role of Islamic educational management in framing the entire process within the principles of Tawhid and Khalifah. Management must consciously design a curriculum in which the flipped classroom serves as a pedagogical bridge to translate these two theological principles into concrete actions. The principle of Tawhid, which teaches the interconnectedness of all creation, can be the central theme in the video or digital reading materials students study. Then, classroom time, facilitated by the flipped classroom model, becomes an arena for students to collaboratively practice their roles as khalifah—for example, by analyzing waste problems in their communities and proposing solutions grounded in Islamic ethics. Thus, educational management does not simply adopt a method (flipped learning) or a piece of content (ESD), but holistically reconceptualizes the educational process as an ecosystem where technology, pedagogy, and spirituality work synergistically to shape a faithful and responsible generation.

3.3 A Holistic Approach to Education

A holistic approach in the world of education is a learning philosophy that emphasizes the development of all aspects of the individual as a whole, including intellectual, emotional, physical, social, and spiritual dimensions. The purpose of this approach is to create a balanced human being who is able to function optimally in personal and social life. Unlike traditional approaches that often focus only on academic achievement, a holistic approach views education as a process that supports holistic and sustainable human growth (Jaili et al., 2024).

One of the main characteristics of a holistic approach is its focus on the relationships between all dimensions of individual development. This approach encourages students to not only understand

academic knowledge, but also explore moral values, empathy abilities, and life skills. In practice, holistic education involves relevant and meaningful learning experiences, where students are invited to relate what they learn to real-life. In addition, this approach emphasizes the importance of relationships between students, teachers, and the community as an integral part of the Educational process (Rusiana et al., 2024).

A holistic approach provides many benefits for students, including strong character building, critical thinking skills, and emotional balance. By paying attention to various aspects of development, students not only become more academically competent but also more aware of social responsibility and human values. In addition, this approach encourages the development of interpersonal skills, such as communication and collaboration, which are crucial in modern life. Overall, a holistic education helps students to grow into globally competitive individuals while also having a sensitivity to their local communities (Fatihatussa'adah et al., 2024).

The application of a holistic approach requires the design of an integrative curriculum and diverse learning activities. Teachers need to create a learning environment that supports creative exploration, reflective discussion, and the development of interpersonal relationships. For example, the integration of art, sports, and meditation in school activities can help students explore their potential holistically. Additionally, engaging students in community-based projects, such as social activities or environmental projects, provides them with the opportunity to apply their learning in real-world contexts (Osborne, 2013).

Although the holistic approach has many advantages, its implementation is not without its challenges. One of them is the need for specialized training for teachers to understand and implement this approach effectively. In addition, holistic approaches often require more time and resources than traditional methods, so educational institutions need to commit to providing adequate support. Another challenge is how to measure non-academic learning outcomes, such as character development or emotional balance, which are often difficult to evaluate with conventional measuring tools (McRae, 2015).

A holistic approach to education is a philosophy that goes beyond mere academic achievement, emphasizing the balanced development of all dimensions of the individual—intellectual, emotional, social, physical, and spiritual. In the context of curriculum design, this approach demands a shift from a siloed, subject-based structure to an integrative curriculum. Such a curriculum is designed to connect various disciplines through relevant themes centered on real-world issues, such as environmental sustainability or social justice. The intended learner outcomes are broader, encompassing not only content mastery but also character development, critical thinking skills, empathy, and collaboration skills. Thus, the ultimate goal is to shape well-rounded individuals who are not only cognitively intelligent but also emotionally mature and possess a strong social awareness.

To operationalize this holistic approach in the classroom, the flipped classroom model offers a highly effective pedagogical mechanism. Practically, teachers can design a curriculum in which theoretical and conceptual materials (the intellectual dimension) are independently studied by students outside of class through digital content. This strategic step "frees up" valuable classroom time to be allocated to activities that address other holistic dimensions. For example, face-to-face time can be used for in-depth reflective discussion sessions (honing the emotional and spiritual dimensions), group-based problem-solving projects (developing social and collaborative skills), or presentations of project results that require physical activity and creativity (engaging the physical dimension).

The implementation of this model directly impacts student learning outcomes. When students come to class having mastered the fundamentals, they are better prepared to engage in higher-level learning. Teachers, whose role has transformed into facilitators, can design activities that challenge students to apply their knowledge in complex and meaningful contexts. For example, after learning about ecosystem concepts online, students in a classroom can work in teams to design a sustainable school garden project. In this process, they not only deepen their scientific understanding but also learn to collaborate, manage resources, and experience the real impact of their actions on the environment.

This is a concrete manifestation of the operationalization of holistic education, where the flipped classroom bridges theory with practice, knowledge with character.

3.4 Flipped Classroom and Sustainable Education: A Holistic Approach to Islamic Education Management

Islamic education management is the process of planning, organizing, implementing, and evaluating in order to manage educational institutions based on Islamic values. The main focus is to create an educational environment that is effective, efficient, and able to realize educational goals in accordance with sharia principles. In this management, the aspect of spirituality has an important role, where every educational activity is directed to form noble morals, scientific development, and social responsibility. Islamic education management also seeks to integrate monotheistic values with modern management practices to create a holistic and quality education system (Wijaya, 2024).

The integration of flipped classroom with sustainable education in Islamic education management produces a holistic and innovative learning approach. One of the main results is to increase the effectiveness of learning through the use of technology and learning methods that support sustainability. In a flipped classroom, students learn independently through pre-prepared materials, such as learning videos or digital modules, so that time in class can be focused on in-depth discussions, collaboration, and hands-on application of concepts. By integrating the principles of sustainable education, this learning not only improves academic understanding but also builds students' awareness of environmental, social, and economic sustainability values. In addition, this integration can also strengthen the role of Islamic education in producing a generation with character and care about sustainability. Sustainable education is in line with Islamic principles, such as the responsibility of humans as leaders on earth and the obligation to maintain harmony between humans, nature, and God. Through the flipped classroom, these values can be conveyed in a contextual and interactive manner, so that students not only understand the concept of sustainability but are also able to internalize it in their daily lives. This approach helps to address the gap between theory and practice in Islamic education.

The results of the study also showed an improvement in students' skills in critical and collaborative thinking. In a flipped classroom, students are encouraged to actively seek information, solve problems, and cooperate with peers during the learning process in the classroom. When this approach is combined with sustainable education, students are not only invited to understand sustainability issues but are also taught to find real solutions that are relevant to Islamic values. This has the potential to create a generation that is not only intellectually intelligent but also cares about and contributes to sustainable development.

On the management side of Islamic education, this integration results in a more adaptive and visionary management strategy. Principals and teachers can develop a curriculum that is based on technology while paying attention to sustainability principles. By using flipped classrooms, education management can optimize the use of time, resources, and teaching staff (Khasanah & Anggoro, 2022). In addition, the implementation of sustainable education encourages educational institutions to create an environmentally friendly learning environment, such as reducing the use of paper and good waste management, so as to become a model of educational institutions that support sustainable development (Kudeikina & Kaija, 2024).

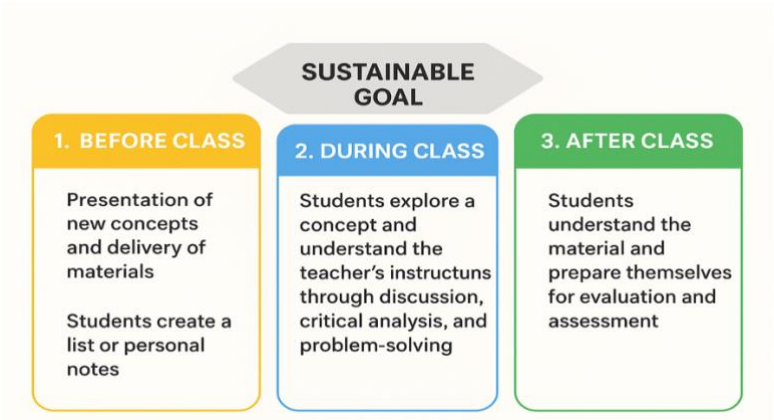

Figure 3. The Holistic Approach of Flipped Classroom and Sustainable in Islamic Education Management

Overall, the integration of flipped classrooms with sustainable education in Islamic education management provides a comprehensive and innovative approach to meet the needs of education in the modern era. This research resulted in a framework that can be applied in various Islamic educational institutions, creating a learning system that is relevant, efficient, and contributes to the sustainable development goals. With this approach, Islamic education can be more responsive to global challenges while still upholding its teaching values.

Islamic educational institutions need to understand and apply flipped classrooms because this approach is able to increase the efficiency and relevance of learning in the digital era. Flipped classrooms change the traditional way of teaching by flipping the learning process, where students learn the basic material independently before a face-to-face session. This approach provides opportunities for Islamic educational institutions to use their time in the classroom more productively, such as for in-depth discussions, critical analysis, or the application of concepts in real contexts. In education management, the implementation of flipped classrooms also supports resource optimization, both in terms of teaching time and technology utilization.

Flipped classrooms are in line with Islamic educational values that encourage independence in learning and the development of individual potential. Islam teaches the importance of actively pursuing knowledge (iqra'), where students are encouraged to explore knowledge with full awareness and responsibility (Abdullah et al., 2019). With a flipped classroom, students have the opportunity to learn at their own pace and learning style, which allows for the development of their potential more optimally. This approach also allows for more meaningful interaction between teachers and students during face-to-face sessions, so that Islamic values such as patience, justice, and respect for the learning process can be further emphasized (Senjaya & Muhtadi, 2023).

Synchronizing the flipped classroom with the concept of sustainable education is a strategic step for Islamic educational institutions to create a learning system that is not only oriented to academic success, but also to environmental, social, and economic sustainability. Sustainable education emphasizes the importance of education that forms students' awareness of their responsibility to nature, society, and the future. With flipped classrooms, materials on sustainability can be prepared in the form of videos or interactive modules, so that students can learn about these issues before class starts. In face-to-face sessions, discussions can focus on concrete solutions based on Islamic values, such as maintaining environmental balance or implementing social justice principles.

In the context of Islamic education management, the integration of flipped classrooms and sustainable education helps institutions to be more responsive to global challenges. The implementation of flipped classrooms allows education managers to design a more flexible and adaptive learning system, according to the needs of the times. In addition, the concept of sustainable

education encourages Islamic educational institutions to manage resources wisely, such as reducing dependence on printed materials by utilizing digital platforms. This not only supports environmental sustainability, but also reflects efficient and Islamic value-based management.

Integrating the flipped classroom with sustainable education prepares students in Islamic educational institutions to become globally competitive individuals without losing their Islamic identity. Flipped classrooms equip students with independent learning, critical thinking, and collaboration skills, while sustainable education provides an in-depth understanding of the importance of sustainability. This generation is expected to be able to face future challenges while still upholding Islamic values, such as the mandate in protecting the environment and social responsibility. Thus, Islamic educational institutions can produce graduates who are not only academically superior but also play an active role in creating a better world.

The integration of the flipped classroom, sustainability education (ESD), and Islamic educational management is at the heart of this research, offering a fundamental reconceptualization of contemporary educational practices. This synergy is not simply the addition of components, but rather an organic fusion in which each element reinforces and adds meaning to the others. The flipped classroom provides an innovative pedagogical mechanism; ESD provides ethical substance and purpose relevant to global challenges; and Islamic educational management provides a philosophical and structural framework that ensures the educational process remains rooted in spiritual values and aims to shape noble character. Without a holistic approach from Islamic educational management, the flipped classroom risks becoming merely a technological gimmick, and ESD could become a curriculum component divorced from the formation of students' Islamic identities.

To operationalize this integration, we can visualize it as a systematic conceptual framework. At the input level, we have two main components: the pedagogical strategy of the flipped classroom and the objectives of Education for Sustainable Development (ESD). The flipped classroom is a method that reverses the learning flow, where students learn basic material independently through digital content. Meanwhile, the ESD objectives—such as environmental awareness, social justice, and economic viability—are integrated into that digital content, becoming the substance of what students learn outside of the classroom.

The core of this framework lies at the process level, where Islamic educational management principles act as the driving force. During the planning stage, management consciously designs a curriculum and digital teaching materials that are not only informative but also imbued with Islamic values, linking the concept of sustainability with the principles of Tawhid and Khalifah. During the implementation stage, management ensures teachers are equipped with the skills to transform into facilitators capable of leading critical discussions and collaborative projects in the classroom. This valuable face-to-face time provides an arena for applying ESD knowledge in real-world contexts. Finally, during the evaluation stage, management develops a holistic assessment system that measures not only cognitive mastery but also character development, collaboration skills, and the growth of sustainability awareness in students.

The end result, or output, of this integrated process is the creation of a holistic graduate profile. These are learners who not only possess strong Islamic character (akhlakul karimah) but are also equipped with global sustainability awareness and 21st-century skills such as critical thinking, communication, and collaboration. These graduates are able to view challenges like climate change not merely as scientific problems, but as moral and spiritual callings. They are able to use technology wisely and collaborate to create just and sustainable solutions, representing the true embodiment of a caliph in the modern era. This framework demonstrates that, with proper management, Islamic education can be at the forefront of producing a future generation of globally competent and spiritually responsible leaders.

3.5 Challenges in the Implementation of Flipped Classroom in Islamic Education

Although the flipped classroom offers various benefits, its application in the context of Islamic education faces a number of challenges that need to be considered. One of the main challenges is infrastructure readiness and technology accessibility. Many Islamic educational institutions, especially in remote areas, still have limitations in terms of the availability of technological devices and stable internet access (Irham, 2017). In fact, flipped classrooms rely heavily on digital resources such as learning videos and online platforms to support the independent learning process before face-to-face sessions.

In addition to infrastructure limitations, another challenge that arises is the readiness of teachers in implementing this learning model. Flipped classrooms require the role of teachers who are not only presenters of material, but also facilitators who are able to guide discussions and problem-solving effectively in the classroom. The lack of training for teachers in utilizing learning technology can be an obstacle in adopting this model. Therefore, a capacity-building program is needed for educators so that they are able to manage flipped classes optimally.

From the student's side, another challenge faced is discipline and motivation to learn independently. In Islamic education, the formation of character and moral values is an important aspect of learning (Dalimunthe et al., 2022). Flipped classrooms demand the independence of students to learn the material independently before face-to-face sessions. However, without adequate supervision, there is a possibility that some students lack discipline in following the material provided. To address this, Islamic educational institutions need to design effective monitoring mechanisms, such as reflection journals or structured discussions, to ensure that students fully understand the material before the class session takes place.

In addition, aspects of Islamic values in flipped classroom-based learning also need to be considered. This model must be developed while still prioritizing Islamic values, both in the learning content and teaching methods. For example, the material presented must reflect Islamic principles, such as manners in pursuing knowledge, ethics in using technology, and responsibility for the knowledge obtained. Thus, the flipped classroom can be a learning medium that not only increases academic effectiveness, but also strengthens students' Islamic character.

Flipped classrooms also face challenges in terms of learning evaluation. In the traditional model, teachers can directly observe the level of student understanding during the learning session. However, in a flipped classroom, most of the initial comprehension process takes place outside the classroom, so teachers need to look for effective evaluation methods to ensure that all students really understand the material before the discussion session in class. One solution is to integrate formative assessments, such as online quizzes or written reflections, that can be accessed before face-to-face meetings.

In the context of Islamic education management, flipped classrooms require implementation strategies that are aligned with Islamic principles and sustainability. Islamic educational institutions need to ensure that the use of technology in flipped classrooms does not replace the direct interaction between teachers and students which is an important part of Islamic learning. Therefore, the balance between technology and human interaction must be maintained so that holistic learning goals can be achieved.

3.6 Integration of Flipped Classroom, Sustainable Education, and Islamic Education

Flipped classroom and sustainable education have a strong relevance to the principles of Islamic education. In Islam, seeking knowledge is the obligation of every individual, as stated in the hadith of the Prophet Muhammad SAW, "Seeking knowledge is mandatory for every Muslim" (HR. Ibn Majah). The concept of flipped classroom, which encourages independent learning, is in line with Islamic values that teach the importance of initiative in pursuing knowledge. By self-study before class, students can optimize face-to-face time for more in-depth, problem-solving-based discussions, making the learning process more effective (Ozdamli, 2017).

Sustainable education also has strong roots in Islamic teachings. The principle of sustainability in education emphasizes the importance of maintaining a balance between humans, nature, and socio-economy, which is also part of the concept of caliph fil ard (leader on earth) in Islam. Therefore, sustainability-oriented education management is in line with Islamic teachings in maintaining a balance in life and community welfare (EROĞLU & YÜKSEL, 2020). The integration of sustainable education in the flipped classroom can be realized through reducing the use of paper with digital materials, the use of technology for learning efficiency, and the implementation of project-based learning oriented to environmental and social issues.

While integrating the flipped classroom with sustainability education offers a promising vision for Islamic education management, its implementation in practice faces a series of multidimensional challenges. These challenges can be categorized into four main areas: technical, pedagogical, cultural, and institutional. Identifying and formulating strategies to address each of these challenges is key to the successful, holistic adoption of this transformative learning model.

Technical challenges are the most obvious obstacle, especially in areas with limited infrastructure. The digital divide, which includes unequal student access to devices and reliable internet connections, is a major obstacle that can widen inequalities. To address this, Islamic education management can implement more flexible blended learning strategies. For example, for students with limited internet access, digital content can be distributed offline via flash drives or downloaded from the school's computer facilities. Another solution is a "flipped-in-class" model, where the first class session is used for collaborative access to digital materials, before moving on to collaborative activities in subsequent sessions.

From a pedagogical perspective, the primary challenge is the shift in the teacher's role from preacher to facilitator. Many teachers trained in conventional methods lack confidence in managing dynamic classrooms, moderating debates, and guiding problem-based projects. The solution lies in contextualized professional development programs. School management should organize teacher training that not only teaches "how to make videos" but also focuses on "how to be an effective facilitator within the context of Islamic values." This training should include simulations, peer coaching, and how to design classroom activities that stimulate critical thinking while maintaining the etiquette and ethics of discussion.

The cultural challenge is perhaps the most subtle yet powerful. The learning culture in many Islamic educational institutions traditionally reveres the teacher as the primary source of knowledge (top-down), while students are expected to be passive listeners. The flipped classroom model, which encourages student independence and critical thinking, could be perceived as a threat to this order. A mitigation strategy is to conduct outreach that reframes this innovation not as Westernization, but as a revitalization of Islamic intellectual traditions such as ijtihad (independent reasoning) and deliberation. Management can begin with small-scale pilot projects, demonstrating their success in improving students' understanding and character, thereby gradually building acceptance from the school community, including parents.

Finally, institutional challenges relate to policies, resources, and evaluation systems. Without full support from top management, flipped classroom initiatives will remain sporadic efforts by individual teachers. Management must proactively allocate budgets for digital infrastructure and content development, and reform evaluation systems to measure not only memorization but also 21st-century competencies and sustainability awareness. A strategic solution is to integrate flipped classroom implementation targets into the school's long-term strategic plan. This way, management not only grants permission but also provides the resources, supportive policies, and incentives necessary to ensure this innovation can grow sustainably and become an integral part of the institution's identity.

The findings of this study clearly confirm that the synergy between the flipped classroom model and the principles of sustainability education is not simply a fusion of two trendy concepts, but rather a fundamentally mutually reinforcing symbiosis. The results show that when students are given the space to study material independently outside of class, they come to class not only more prepared but

also with greater curiosity. This transformative classroom then becomes fertile ground for cultivating the seeds of sustainability awareness through in-depth discussions and collaborative projects relevant to real-world issues. Thus, the flipped classroom functions as an accelerator, accelerating the internalization of sustainability values, transforming them from mere theoretical knowledge into a living awareness and an attitude manifested in action. This holistic approach to Islamic educational management proves to be the glue that ensures that these innovative methods and in-depth materials remain firmly rooted in the noble goal of education: to shape intellectually intelligent, emotionally mature, and morally noble human beings.

Furthermore, these findings reveal a subtle yet significant shift in the dynamics of the relationship between teachers and students. In this new learning ecosystem, the teacher's role evolves from that of a lecturer to that of a facilitator and mentor. The removal of the burden of delivering basic classroom material gives teachers the luxury of time and energy to do far more essential things: listen, ask questions, provoke thought, and guide students on their intellectual and spiritual journeys. This more personal and in-depth interaction is the key to successfully instilling sustainability values. Complex issues like climate change or social injustice cannot be taught simply through the transfer of information; they must be addressed through heart-to-heart dialogue and role modeling. This integrated learning model creates an authentic space for these transformative moments, where students no longer see sustainability as an "additional subject" but as an integral part of their identity as responsible Muslims before the Creator and their fellow creatures.

In the context of Islamic education, the flipped classroom not only functions as a learning method, but also as a tool to instill Islamic values in the educational process. For example, the flipped classroom approach can be used to strengthen students' understanding of ethics in learning, such as academic honesty, discipline, and responsibility. When students are given the freedom to learn independently, they are taught to respect time, make good use of knowledge, and understand the importance of trust in pursuing knowledge (Syamsy & Zamroni, 2023). This is in accordance with Islamic principles that teach noble morals in every aspect of life.

In addition, the application of flipped classrooms in Islamic education can strengthen more interactive and contextual educational practices. Teachers can relate learning materials to relevant Islamic values, for example in science learning that discusses the creation of the universe and how Islam teaches humans to take care of it. Thus, the flipped classroom not only improves academic understanding but also strengthens the connection between modern science and Islamic teachings.

From the perspective of Islamic education management, the integration of flipped classroom and sustainable education allows Islamic educational institutions to be more flexible and adaptive in facing the challenges of the times. By utilizing technology optimally, Islamic educational institutions can provide a more dynamic, efficient, and Islamic value-based learning experience. In addition, the application of sustainable education in the flipped classroom can help form a generation that has a high awareness of social and environmental responsibility, as taught in Islam.

The relationship between flipped classroom, sustainable education, and Islamic education can be strengthened through the integration of Islamic values in every aspect of learning. Flipped classrooms are in line with Islamic teachings about independence and initiative in pursuing knowledge, while sustainable education reflects the Islamic concept of human responsibility in maintaining a balance in life. By applying this learning model in the context of Islamic education, it is hoped that a generation can be formed that is not only academically superior but also has strong ethical, social, and environmental awareness in accordance with Islamic values.

The findings of this literature analysis point to a central argument: the integration of the flipped classroom, Education for Sustainable Development (ESD), and Islamic educational management is not simply the sum of three stand-alone paradigms, but rather a dynamic, transformative interaction. This interaction works as follows: the flipped classroom acts as a pedagogical engine, transforming the allocation of time and roles in the classroom; ESD provides a moral compass and content substance relevant to the challenges of the times; while Islamic values, operationalized through management,

serve as a philosophical foundation that gives spiritual meaning and purpose to the entire process. The three interact dynamically, not simply side by side. Without ESD, the flipped classroom would simply be an efficient method for teaching potentially outdated content. Without the flipped classroom, ESD risks remaining an abstract theory that is difficult to internalize. And without an Islamic values framework, both could lose their spiritual roots and cultural relevance.

To illustrate this dynamic interaction, let's imagine a hypothetical scenario in a Madrasah Aliyah (Islamic high school). A Fiqh (Islamic jurisprudence) teacher wants to cover a chapter on muamalah (economic transactions). Instead of explaining the concepts of usury, buying and selling, and debt in the conventional classroom setting, the teacher applies this integrated model.

First, the Out-of-Class Phase (Input: Flipped + ESD + Islamic Values): Students are assigned to watch a short, pre-prepared learning video. This video not only explains the Islamic jurisprudence definition of usury but also connects it to the economic sustainability concepts of ESD, such as the dangers of consumer debt and the importance of fair investment. The video concludes with a Quranic verse prohibiting usury and a hadith on the ethics of trade, framing this economic issue as a moral and spiritual one.

Second, In-Class Phase (Process: Dynamic Interaction): Students come to class not empty-headed, but with a basic understanding and questions raised from the video. Class time is then devoted to a case study: "Analyzing the widespread practice of illegal online loans (pinjol) in society from the perspective of Islamic jurisprudence and social justice." Students are divided into small groups for discussion (applying the principle of shura). They analyze not only the element of usury but also its social impact on poor families (connecting it to the social pillar of ESD). The teacher's role here is as a facilitator, provoking thought with questions such as, "If pinjol is haram and destructive, what microfinance solutions can we propose that are in accordance with Islamic principles and sustainable?"

Third, Project Phase (Output: Holistic Synthesis): As a culmination of learning, each group is tasked with developing a simple proposal for a "Digital Sharia Cooperative for Students" as an alternative solution. In this process, students actively apply their knowledge of Islamic jurisprudence, the principles of economic justice from ESD, and 21st-century collaboration skills. The outcome is no longer simply a test score, but rather a learning experience that shapes them into critical, solution-oriented individuals with a sense of responsibility as socially and economically responsible caliphs.

This scenario demonstrates how these three paradigms interact dynamically. The flipped classroom creates space for case studies, ESD provides real-world relevance to Islamic jurisprudence lessons, and Islamic values provide a strong ethical foundation for finding solutions.

The implications of this model for Islamic educational institutions are significant, particularly at the policy and curriculum levels. First, curriculum policies must shift from content-based to competency- and project-based. Educational management needs to formally encourage interdisciplinary curriculum design that allows Islamic jurisprudence teachers to collaborate with Economics and Sociology teachers. Second, teacher professional development policies must be reoriented. Teacher training should not be limited to the technical aspects of video production but should focus on developing capacity as facilitators of critical dialogue and project mentors capable of integrating Islamic values into contemporary issues. Finally, evaluation policies must be reformed to accommodate holistic assessment. Project portfolios, peer assessments, and participant observation in discussions should be given equal weighting with traditional cognitive tests to accurately measure the desired learning outcomes: an intelligent, critical, caring, and solution-oriented Muslim.

4. CONCLUSION

This study concludes that the integration of the flipped classroom model with the principles of sustainable education, framed within holistic Islamic educational management, is not simply a fusion of concepts, but rather a transformative pedagogical symbiosis. The core of these findings is the formulation of a conceptual framework that demonstrates how the flipped classroom can serve as an accelerator for instilling sustainability competencies. This model effectively liberates the classroom

from passive delivery of material and transforms it into an active workshop where students can engage in problem-solving, critical dialogue, and collaborative projects rooted in real-world environmental, social, and economic issues. The main contributions of this study are both theoretical and practical. Theoretically, this research bridges the literature gap by presenting an integrative model that connects modern pedagogical innovations with Islamic spiritual values and the global goals of Education for Sustainable Development (ESD). Practically, the proposed framework offers strategic guidance for Islamic educational leaders, curriculum developers, and teachers to redesign learning experiences that are not only digitally relevant but also ethically meaningful and oriented toward the formation of responsible khalifah fil ardh (vicegerents) on earth.

However, this study has limitations due to its conceptual and theoretical scope, which is based on a literature review. Therefore, empirical validation of the proposed framework is a crucial direction for future research. Future studies are recommended to conduct field research, such as case studies or classroom action research, across various Islamic educational institutions to test the effectiveness, challenges, and adaptability of this model in real-world contexts. Further investigations could also explore the development of digital teaching materials that explicitly integrate sustainability content with an Islamic perspective to support optimal implementation of the flipped classroom.

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